INDEX OF SUBJECTS

acrididæ, 211-214
addition lines, 89-100
affinity, in cotton, 263-274
  in tomatoes, 275-283
allele, 268
  multiple, 286
  t-allele, 247-252
amino-acids, 61-71
angiosperms, 125
apomitic, 101-113
Aspergillus, 224

backcross, 89 *sqq.*, 178, 265
  in tomatoes, 277
behaviour patterns, 224
biology, 218
Blakeslee, 451
blood groups, 218
brassica, 221
breeding system in man, evolution of, 297-332

cell, 217
centromere, 275 *sqq.*
Cepaea, 423-443
chaeta number, 36, 413
character, sex-linked, 401-409
chiasma formation, 91, 396
  frequency, 211-214
Chorthippus, 211-214
chromatid aberrations, 456
chromosomal polymorphism, 19
chromosome, 89
  supernumerary, 213
  recombinant, 375 *sqq.*
colour vision, defective, 457
copigmentation, 256
crosses, 101-113
  diallel, 133 *sqq.*
crossing-over, 116, 247 *sqq.*
cotton, 263-274
  improvement, 449
cousin marriage, 297-332

Darwin, 449
Datura, 451
development, chemical basis of, 217
  in *Lochnera*, 254
diallel, 385 *sqq.*
differentiation, 125-132
DNA, 125 *sqq.*
dominance, evolution of, 73-87
Drosophila, 204, 411 *sqq.*, 420
  melanogaster, 35-49, 151-162, 375-399, 412
  monomorphic populations, 24
  polymorphic populations, 23, 24

Drosophila—continued
  pseudoobscura, 19 *sqq.*
  subobscura, 455
  wing asymmetry, 29

fertility, 93
  in man, 297 *sqq.*
Festuca pratensis cross, 51-60
flare reactions, 227
flower colour, 253-261
fostering, in mice, 5
  cross-, 11
fruit setting, 101
full-sib pairs, 401-409
fungi, 222
ear emergence, 230 *sqq.*
  characters, heritability of, 232 *sqq.*

ectrodactyly, in man, 228
egg transfer, technique of, 3
electronic computer, 458
endosperm, impairment, 57, 58
  nucleus, 101
euploid, 91, *sqq.*
evolution, of breeding system in man, 297-332
  in human populations, 454
  of *Maniola*, 333-364
  mechanism of, 216

gamma-radiation, effects of, 51-60
genetic model, 366 *sqq.*
genetical research, 453
genetics, cotton, 449 *sqq.*
  of defective colour vision, 457
  human, 215
genes, blackarm, 264 *sqq.*
grain weight, 365-373
growth, in mice, 1

heredity, 216, 454
heterocaryosis, 207-210
heterogeneity, 435
heterosis, 133-149, 224
hexaploid, 91
histones, 125
homeostasis, 412
homozygotes, 187-196, 392 *sqq.*
hybridisation, 168
hybrids, tomato, 133-149

inbreeding, 242, 401-409
  in man, 308 *sqq.*
incompatibility, seed, 51
inheritance, 363-375
  of tails, 169

interaction, genotypic-environmental, 115-123
inter-allele complementation, 227
irradiation, endosperm development following, 57
ovule, 55
pollen, 53
isoniazid metabolism, 227

Lathyrus, 457
leucineless, in *S. typhimurium*, 61-71
Lima bean, 115-123
linkage, 35 *sqq.*, 285 *sqq.*
littoral population, 226
Lochnera, 253-261
Lolium, 229-246
perenne cross, 51-60
lymph gland, 151

macroconidia, 207 *sqq.*
Maniola, 333-364
marker genes, 40 *sqq.*
markers, genetic, 66, 275
matrocliny, 365 *sqq.*
mating, mixed sib, 187-196
performance in mice, 14
random, 187-196
megagametophyte, 101
meiosis, 90
meiotic behaviour, wheat-rye chromosome addition lines, 89-100
melanin, 151-162
mice, inbred, 458
microconidia, 207 *sqq.*
mimicry, evolution of, 163-173
super-genes, 175-185
modifiers, 445-448
mouse, embryos, 5 *sqq.*
litters, 6, 7, 12
mutation in, 223, 247-252
polydactyly in, 445-448
mutants, methionine-suppressor, 458
of *S. typhimurium*, 62
mutation, 163, 164
back-, 63
mouse, 247-252
Myrmeleotettix, 211-214
mutation, 285

neurospora, 207-210
nuclei, 128
of pollen grains, 125-132

overdominance, 197-206

pachytene association, 91
Papilio, 73-87, 163-173, 175-185
Paramecium, 225
parent, male, 101-113
performance of, 134 *sqq.*
phage, preparation of, 61, 62
Phaseolus, 115
plant breeding, 453
plant distribution, 222
pleiotropy, 285
pollen, grains, 125-132
irradiation, 52 *sqq.*
pollination, cross, 105 *sqq.*
self, 89 *sqq.*
polymorphism, 423
Polystictus, 223
population, human, 454
structure, 229-246
pseudogamous species, 110
pseudogamy, 101, 105
pseudotumours, 151-162

quasi-linkage, 275 *sqq.*

radiation, gamma, 51-60
regression, parent progeny, 235
rheumatic carditis, 228
ribonucleoprotein, 125 *sqq.*
rice, 363-375
Rubus, 101-113, 221

Salmonella typhimurium, 61-71
Secale cereale, 89 *sqq.*
seed, shape, 107
size in Lima bean, 115-123
seed-set, 93
pollen irradiation, 53
seeding vigour, 106 *sqq.*
selection, disruptive, 35 *sqq.*, 73-87, 225, 226
for ear emergence, 229 *sqq.*
effects on tomato gene, 285-296
natural, 216, 423-443
recurrent, 197-206
response to, 229-246
selfing, 105 *sqq.*, 193 *sqq.*
Senecio, 225
sexuality, 109
snails, polymorphic, 423-443
specificity, of leucineless suppressor, 66
spermatogenesis, in man, 456
spotting, in *Maniola*, 333 *sqq.*
stability, 94, 211
developmental, 411-422
sterility, in *Labiatæ*, 457
strawberries, 222
substitition lines, 98, 99
super-genes, 175-185
suppressor, leucineless, 61-71
syndactylism, 458

tails, 169, 175 *sqq.*
taxonomy, 109
temperature, effect of, 411-422
tetraploid, 101 *sqq.*
tomato, 133-149
affinity in, 275-283
suppressed lateral in, 285-296

transduction, frequency, 63
tretamine, mutagenic action of, 456
Triticum, 89 *sqq.*
  yield components of, 458
tumours, melanotic, 151-162

variation, of chiasma frequency, 211-214
  of ear characters, 233
  seasonal, 115 *sqq.*
viability, 375-399, 414
virus, infection, 222
  research, 218

wheat-rye chromosome addition lines, 89-100

X-rays, effect of, 247-252

yield, 133-149

zygotene process, 91

INDEX OF AUTHORS

Allard, R. W., 115-123
Avery, A. G., 451

Barigozzi, C., 151-162
Barker, J. F., 211-214
Barnett, S. A., 224
Basford, K., 225
Bateman, A. J., 456
Beale, J. H., 225
Bodenheimer, F. S., 218
Bodmer, W. F., 445-448
Bowman, J. C., 197-206
Breadmore, J. A., 19-33, 411-422
Breese, E. L., 375-399
Brumby, P. J., 1
Burnet, B., 226
Burnett, J. H., 222

Cadman, C. H., 222
Castiglioni, M. C., 151-162
Chandraratna, M. F., 365-373
Clarke, B., 423-443
Clarke, C. A., 73-87, 163-173, 175-185, 228
Cooper, J. P., 229-246
Crosby, J. L., 458

Darlington, C. D., 297-332, 449
Di Pasquale, A., 151-162
Dobzhansky, Th., 19-33
Dowdeswell, W. H., 216, 333-364
Dunn, L. C., 454

Evans, D. A. Price, 227

Fincham, J. R. S., 227
Ford, E. B., 333-364

Gibson, J. B., 225
Gilbert, N., 133-149
Glass, B., 217
Grigg, G. W., 207-210
Grüneberg, H., 458

Haan, H. de, 453
Harland, S., 225
Hartshorne, J. N., 457
Haskell, G., 101-113, 221
Hayman, B. I., 187-196
Hutchinson, Sir J., 449

Jurand, A., 225

Kalmus, H., 227, 457
Korde, V. T., 401-409

Lewis, D., 458
Lupton, F. G. H., 458
Lyon, M. F., 247-252

Martin, P. G., 125-132
Mather, K., 375-399
Matthews, J. R., 222
McClearn, G. E., 224
McConnell, R. B., 228
McElroy, W. D., 217
McWhirter, K. G., 333-364
Miller, O. J., 456
Millicent, E., 226
Mittwoch, U., 456
Montgomerie, I. G., 222

North, C., 221

Ockey, C. N., 456

Page, A. R., 187-196
Parsons, P. A., 115-123
Partington, M., 223
Pavlovsky, O. A., 19-33
Penrose, L. S., 215, 456
Plack, A., 457
Plomley, N. J. B., 224
Priestley, W. G., 221

Reid, R. D., 222
Reusch, J. D. H., 51-60
Rietsema, J., 451
Riley, R., 89-100
Roberts, R. C., 458
Robertson, W., 455
Rudorf, W., 452
Rudwick, D., 217

Sakai, K., 365-373
Satina, S., 451
Searle, A. G., 223
Selim, A. R., 457
Sheppard, P. M., 73-87, 163-173, 175-185, 216, 228
Simmons, N. W., 253-261
Smith, J. Maynard, 455
Smith-Keary, P. F., 61-71
Sondhi, K. C., 455
Stevenson, A. C., 228

Thoday, J. M., 35-49, 225, 226

Wallace, M. E., 263-274, 275-283
Wilkie, D., 224
Willoughby, D. A., 227
Williams, C. B., 223
Williams, W., 133-149, 285-296